Peer to Peer Deaf Multiliteracies: experiential pedagogy, agency and inclusion in working with young adults in India

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Abstract

In many countries across the world education for deaf people is limited and sign languages are undervalued. In this paper we discuss a formative and design experiment (Bradley & Reinking, 2008), developed over 3 years and implemented in India, Ghana and Uganda, to support deaf education for young adults. Reporting here specifically on the work in India, our project used a bilingual approach, with Indian Sign Language as the main means of communication and learning while developing students' English literacy through the adoption of a multiliteracies pedagogy (Cope & Kalantzis, 2000) and the use of authentic texts in lessons. Our approach was designed to be learner-centred, inviting their agency and input. Responding to students' engagement with the approach, we encountered their demand for formal grammar teaching and we offer an example of how one of the tutors engaged with this. Illustrated with the aid of visual data from the lessons, we discuss specifically two insights from the project: the importance of the students' 'semiotic repertoire' (Kusters et al., 2017) leveraged in the lessons and acting as a driver to support learning; and the centrality of an educational approach that is inclusive and supportive of students' agency and aspirations for learning.

keywords: deaf education, English, India, multiliteracies

Introduction

Across the world, access to education for deaf people is far from universal with provision often patchy and the quality of what is available varying a great deal (Murray et al. 2016). Sign languages may be used in the education of deaf children and adults, but frequently the main aim of that education is inclusion in a mainstream community sharing a spoken language, for example English. However, such a conceptualisation of inclusive education, often favoured by policy-makers, can result in mainstreaming deaf learners without appropriate support at every level of interaction in classrooms and beyond. Inclusion in the mainstream may result in students being isolated from deaf peers (Murray et al. 2018) and thus prevented from communicating in their L1, sign language; thus vital cultural development is hindered (Snoddon and Murray 2019). Fluency in a sign language may not be considered a valued educational goal.

In many countries, however, sign languages are underecognized and even stigmatized (de Meulder, Murray, and McKee 2019). This, together with the lack of access to education for deaf people, contributes to their social, political and economic marginalization. Segregation, where deaf students are taught separately, is often synonymous with a deficit approach, or the idea of 'special needs' where deafness (or any other disability) is seen in terms of what students are lacking in comparison to mainstream educational expectations, disregarding the resources such as sign language competence they bring to their education (Collins and Ferri 2016).

In a recent report, the Internation Disability Alliance states that 'inclusion is (and can

only be measured in relation to) full participation in the learning process' (International Disability Alliance 2020, 19). The Alliance emphasizes that for deaf learners to achieve this, learning and ongoing use of a sign language is essential. With regards to deaf education, the Alliance recognizes that integration into mainstream schools does not automatically equal inclusion. It acknowledges the current role of schools for the deaf.

The present paper and the research issues it discusses need to be seen in this global context of limited recognition of sign language and often poor educational opportunities for deaf children and young people. We discuss insights from a three year long project, 'Peer to Peer Deaf Multiliteracies: towards a sustainable approach to education' (2017-2020; see acknowledgement at end). The project developed and tried out a pedagogy for teaching English and sign language to young deaf adults in India, Ghana and Uganda. This was a 'formative and design experimen' in the sense advocated by Bradley and Reinking (2008), in their influential book on language and literacy research.

While located outside mainstream education, offering separate teaching for deaf students only, our project's approach was inclusive in two ways. Firstly, the students' L1, sign language, was fully integrated in the teaching, as a key medium through which learning took place. Secondly, we rejected a deficit understanding of deafness, replacing this with the presumption 'that each learner has something valuable to contribute' (Collins & Ferri, 2016, 10). This aligns with the focus in the recent Global Monitoring Report (UNESCO 2020) which explixitly acknowledges that for the goal of inclusive education to be achieved, the diversity of resources and experiences that different children bring to their education needs to be recognised.

We had trialled this approach in an earlier pilot (Gillen et al. 2016). Our experiences led us to further develop our approach as likely to flourish fruitfully through an adoption of multiliteracies pedagogy (New London Group 1996; Cope and Kalantzis 2000). This values

and develops the variety of modes people communicate in and links classroom learning to everyday uses of language and literacy. As explored in detail below, a multiliteracies pedagogy was planned to support students' sign language, metalinguistic abilities and multimodal communication, with written English as a key element. A multiliteracies approach promotes diversity in modes of communication, often interacting with authentic texts or 'real literacies' (Rogers et al. 1999). Essential to understanding our design is the underpinning ethos of our project, taking deaf students as partners in determining the multiple modes of their educational experiences, supported by peer tutors, also deaf, as collaborators in their learning. There are few formally trained deaf teachers in India, Ghana and Uganda and that deaf learners suffer systemic disadvantages (Akanlig-Pare et al. 2021) . As we shall show through our examples below, training and support for the peer tutors was an important component of our approach.

In this paper we examine the following overarching research question: How can a multiliteracies approach be used to develop a formative and design experiment (Bradley and Reinking 2008) to support deaf young people's education building on their existing resources and experiences? Implicit in this question are two sub-questions: (RQ1) How can the multiliteracies approach, developed in the context of first language and literacy education in mainstream schools of the Global North, be drawn on with deaf students learning what for them is a second or third language? (RQ2) How can the pedagogy be designed and implemented flexibly and creatively, adapting to teachers' and students' agency and preferences?

Literacy as social practice and multiliteracies

The understanding of literacy that we work with is rooted in conceptualisations of literacy as social practice. In his seminal work Street (1983) argued from his insights into literacy practices in countries outside the Global North that understandings of literacy as

individualised cognitive skills were inadequate to capture the breadth and richness of people's use of literacy in everyday life, beyond the formal schooling context. The concept of literacy practices captures the diverse ways in which people engage with and value different forms of reading and writing, acknowledging that such practices are situated within and shaped by social and cultural contexts. Street's anthropological approach to literacy chimed with other work at the time that has come to be seen as foundational to New Literacy Studies also termed literacy studies, (Heath 1983; Scribner and Cole 1981; see Gillen and Ho 2019). Over the past decades, researchers in literacy studies have continued to provide much insight into literacy practices within and beyond educational settings and concluded that literacy pedagogies in education are often too narrow in content and style to best enhance and support the full range of children's and young people's literacy practices (e.g. Pahl and Rowsell 2020). Privileging decontextualised, individually based, narrowly defined and assessed literacy skills has the effect of shutting out much potential for 'capturing, understanding, and leveraging youths' repertoires toward new social futures', as argued by Gutiérrez, (2013, xxxi)

In the late 1990s a group of scholars interested in promoting social justice in education with attention to diversity, in multilingualism and other semiotic modes, argued that the ultimate aim of education should be to promote the effective participation of youth in 'public, community and economic life' (New London Group 1996: 60). From this emerged the multiliteracies approach, nowadays widely used and researched (Kalantzis and Cope 2021). The orientation towards social justice promoted by multiliteracies is relevant to our work. Our project is framed by the wider goals of support for sign languages as deaf people's first language and for empowerment and capacity building for deaf communities. It should be noted that therefore our project does not aim at what is sometimes called 'deaf bilingual education', ie an approach where sign languages are used but with the overall aim of

developing oral language abilities (Munoz-Baell et al. 2011, 867) .

A multiliteracies approach encourages learners to take a critical view to meaning-making by themselves and others. This aligns with Street's (2000) model of literacy as inevitably ideological, in which practices are valued or not according to the values of more powerful elements in society, such as education policy makers. The 'multi' dimension in multiliteracies encompasses two elements: the use and recognition of multiple languages and socially and culturally appropriate forms of language, including non-standard, popular language varieties and the central role of multiple modes, including visual, gestural and others in communication (Cope and Kalantzis 2009). Agency takes a central place in a multiliteracies perspective, with meaning-making seen as dynamic and creative (Leander and Boldt 2013; Jacobs 2013). Embodiment, oral communication, materiality and spatiality are all intrinsic components of literacy as social practice (Comber 2016; Enriquez et al. 2015; Pahl 2014).

Understandings of literacy as social practice and in particular the multiliteracies approach have relatively rarely been taken as lenses to projects working with students regarded in their wider society as having disabilities. Attention has been paid to just a few areas. For example Flewitt et al. (2009) and Lawson et al. (2012) advance promising approaches to the education of children with severe learning difficulties through attention to multiple modes of communication. Naraian and Surabian (2014) bring literacy studies and multiliteracies together to argue for more sensitive understandings of assistive technologies in classrooms. Collins and Ferri (2016) reject a deficit-based model of disability in education and instead focus on changing pedagogical practices and classroom environments to support students' diverse learning needs. Glaser and van Pletzen (2012), looking at deaf education in South Africa, argue for the benefits of non deficit focussed, high quality inclusive approaches to literacy education, made possible for example through the use of sign language interpreters

in classrooms. We turn now to outline our approach to the project in India beginning with the training.

The Peer2Peer deaf multiliteracies project in India

Our three year long project began with a six months long training period for peer tutors and research assistants. Training, conducted at one of our partner schools in India, focussed on understanding literacies as multimodal, social, and culturally embedded practices. We used examples of authentic texts, referred to as 'real literacies' (Rogers et al. 1999). Collaborative training activities worked on crafting lessons around authentic texts including vocabulary work and the demands of various genres such as completing forms encountered in everyday life. Together with the project lead and the local deaf co-investigator, the first author of this paper, Uta, modelled how grammar teaching can be linked to authentic texts, in a process of identifying and focussing on selected grammatical features encountered. Training was conducted through Indian Sign Language, the lingua franca for most project participants, and worked with multiple semiotic modes.

Teaching of students took place in the three countries in two cycles in 2018 and 2019. Follow up training of one month was offered in spring 2019. In this paper we only report on the teaching in India. Our project partners in India were the Delhi Foundation for Deaf Women (DFDW) and the Indore Bilingual Deaf Academy (IBDA).In all our classes, the main medium of communication and learning was ISL. None of the learners or tutors used hearing aids or had cochlear implants.

Table 1 below gives an overview of classes and of the data from those classes underpinning our discussion here.

Loca-tion	Period	Number of tutor reports (covering one month of teaching each)	Number of research assistant or other observations	Photographs of classroom activities	Sample student work	Number of students and age
DFDW Delhi	May 2018 to January 2019	9		Each monthly tutor report includes between 3 and 8 photos of the students doing classroom activities	For each month, samples of student's work: photographs of their writing or videos of presentations in ISL	12 (16-26 years old)
IDBA Indore	June 2018 to January 2019	8	RA observation reports from two weeks in January 2019	As above	As above	14 (18-25 years old)
IDBA Indore	July to October 2019	4	Observation notes by 1st author from 5 teaching sessions	As above, plus photographs taken during Author A's lesson observations	As above	13 (18 – 30 years old)

Table 1   Overview of data used

Methodology

As alluded to above, we conceptualise of our project as a formative and design experiment

(Bradley and Reinking 2008). The essential qualities of this conception is that such

experiments are creative attempts, flexible in their implementation, to bring about positive

change, founded on clear theoretical notions, and employing systematic approaches to data

collection and analysis (Bradley and Reinking 2008). We have explained the theoretical

notions informing our project in the previous section. In terms of data collection, important to our creative approach was the use of multimodal data from a variety of sources. In each project location, for the duration of the classes taking place, peer tutors wrote monthly reports of their teaching which included samples of their teaching materials and photographs of classroom activities (see table 1). Research assistants wrote reports of their observations of the classes, accompanied with photographs and videos. We also collected, roughly on a monthly basis, examples of students' learning, which we called portfolios, and which offer important insights into specific learning activities and how different students engaged with them. The project received full ethics approval from Lancaster University.

We also collected data ourselves, during visits to some of the project sites. Uta was involved in the training of tutors in 2017, spending a week with the trainees introducing them to key concepts in Literacy Studies such as real literacies and multiliteracies. She visited one of the sites in India, in Indore, for a week in September 2019, daily observing lessons and working closely with two tutors and one research assistant.

From her visit, we have classroom observations notes, photographs, videos and samples of teaching materials (see table 1 above). As academics we occupied a certain degree of fluidity in our professional identity during these visits. Our roles varied between non-participating observer of some classes, participating co-teacher (supporting the peer tutor), teacher trainer and researcher. We were conscious of the dual importance of doing whatever we could to creatively support, even shape, the pedagogy but also to draw on our experience as ethnographers in research. For example during her week at the IBDA, Uta observed one lesson, discussed it later with the tutor, suggested revisions, supported the tutor in developing a plan for next day's lesson, which she then observed and later discussed with him

We conducted data analysis using a process of thematic coding.We operated with an

open coding framework, our starting point being to understand how the multiliteracies approach was engaged with and what challenges and adaptations were made (see above RQs 1 and 2). We coded for example for the presence of authentic texts and whether these were tutor or student chosen; instances of sign language use; resources including digital or physical; elements of grammar teaching, challenges experienced by tutors, etc. This was an inductive process as in the course of working through the data set, new codes emerged and were then backfilled as needed.

We now present our data through two examples each describing a series of lessons. These were chosen because they are indicative of the project's overall approach, and demonstrate some contrasting features, showing diversity in how the multiliteracies approach was engaged with and adopted by the students and tutors.The second example features the work of Author A while visiting the project.

Multiliteracies in our classes, example 1: Shopping online

Here we examine a series of lessons on the topic of 'shopping online' taking place over 2 weeks in November 2018. The students were a group of 9 female learners who attended a daily afternoon class of 90 minutes, held on the premises of our project partner, the Dehli Foundation of Deaf Women (DFDW), and taught by our peer tutor and research assistant Deepu M from May 2018 to January 2019. The women were between 16 and 27 years old, with most in their early 20s. The class took place either in a meeting room or in the Foundation's computer lab. In the meeting room, Deepu used a desktop computer and a white board, as well as flipcharts for group work. The lab was equipped with enough computers for each student to use their own machine. The students had mobile phones and at times would use these in the lesson, for example to look up the meaning of an English word. Data drawn upon included tutor reports, photographs from the lessons, and samples of students' work, including short videos. While in India, first author Uta Papen had the opportunity to discuss

his reports and experiences with this class with Deepu.

The topic for the lessons we discuss here had been chosen by the students. They had seen adverts of online shops on TV and wanted to know how to shop online, for example for clothing, watches or grocery. Deepu started the topic demonstrating, with the help of the teaching room's computer, how a website such as Amazon or Flipkart (an Indian online shop) work. Figure 1 below shows Deepu explaining to the students how he would buy an item on Amazon. His lesson involved a practical demonstration of the process. In his tutor report, Deepu explains that he bought a new pen drive from Amazon so that he could show the students the full process of purchasing an item online.

Figure 1   Explaining how to shop online

Deepu's lessons included a lot of work on the authentic text, here, the website. A key element of the lessons, as explained by Deepu in his reports, was working with the students on the English words and phrases the website used and which they were not familiar with. These included words and concepts such as *discount, delivery, cashback, refund, cash, cart, debit and credit card, delivery* and *order*. Figure 2 below shows the whiteboard on which Deepu had written some of these words. Deepu and his students also looked at words such *prices, savings* and *discounts*.
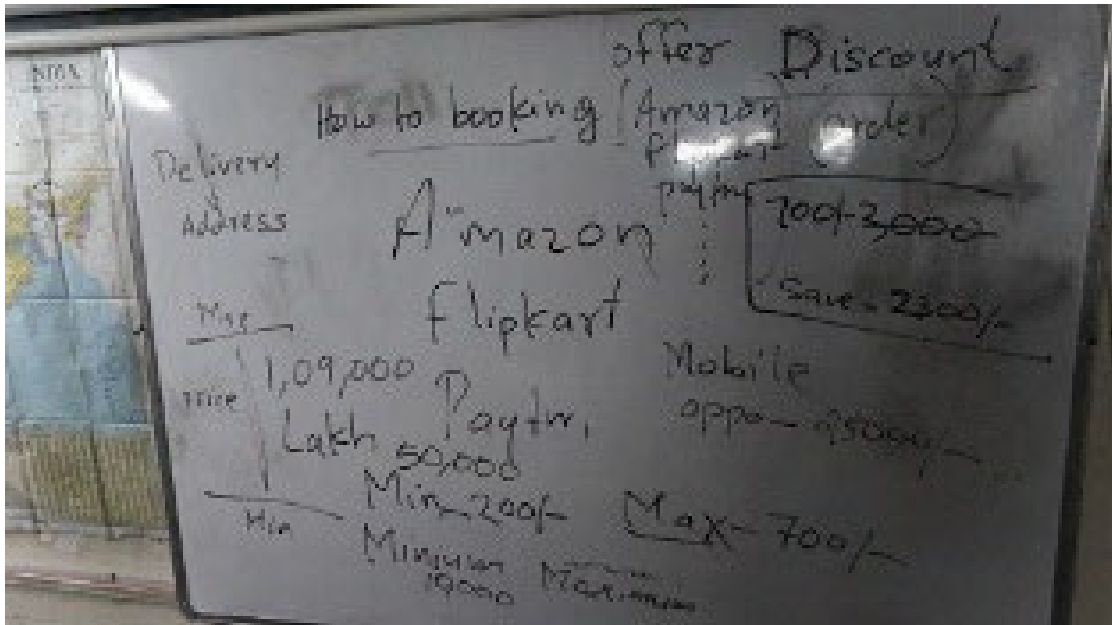
Figure 2   Words and concepts

In later lessons, the students spent time in the computer lab trying out using an online shopping website. They did this individually or in pairs, as shown in Figure 3, where we can see two of the girls having a go at trying out Amazon India's website.

Figure 3   Two students try out an online shopping site

Having experienced the sites in the computer lab, Deepu divided the girls into groups to produce a poster representing the interface of a shopping website. Figure 4 shows the

groups working on their posters. Figure 5 shows one of the posters.

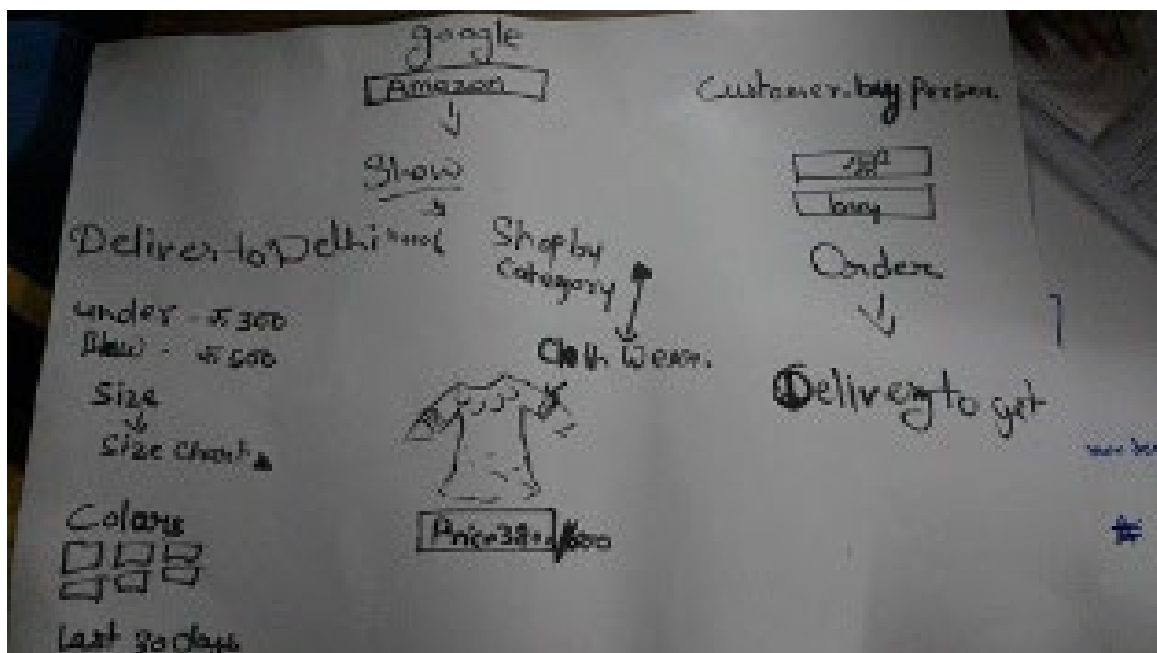Figure 4   The girls working on their posters

Figure 5   Example of a poster

Deepu also asked each of the girls to produce their own flowchart of the steps required for buying goods online. Figure 6 shows Neery's flowchart. Each woman presented her flowchart in class explaining it in ISL, while being videoed.

Neery
28/11/18

Amazon

Sign in

Email (phone) for mobile accounts

Password =

Amazon shop

Colour - black

search

welcome watches

Watches : Rs 450   50% Rs- 225/-

You save- 225/-
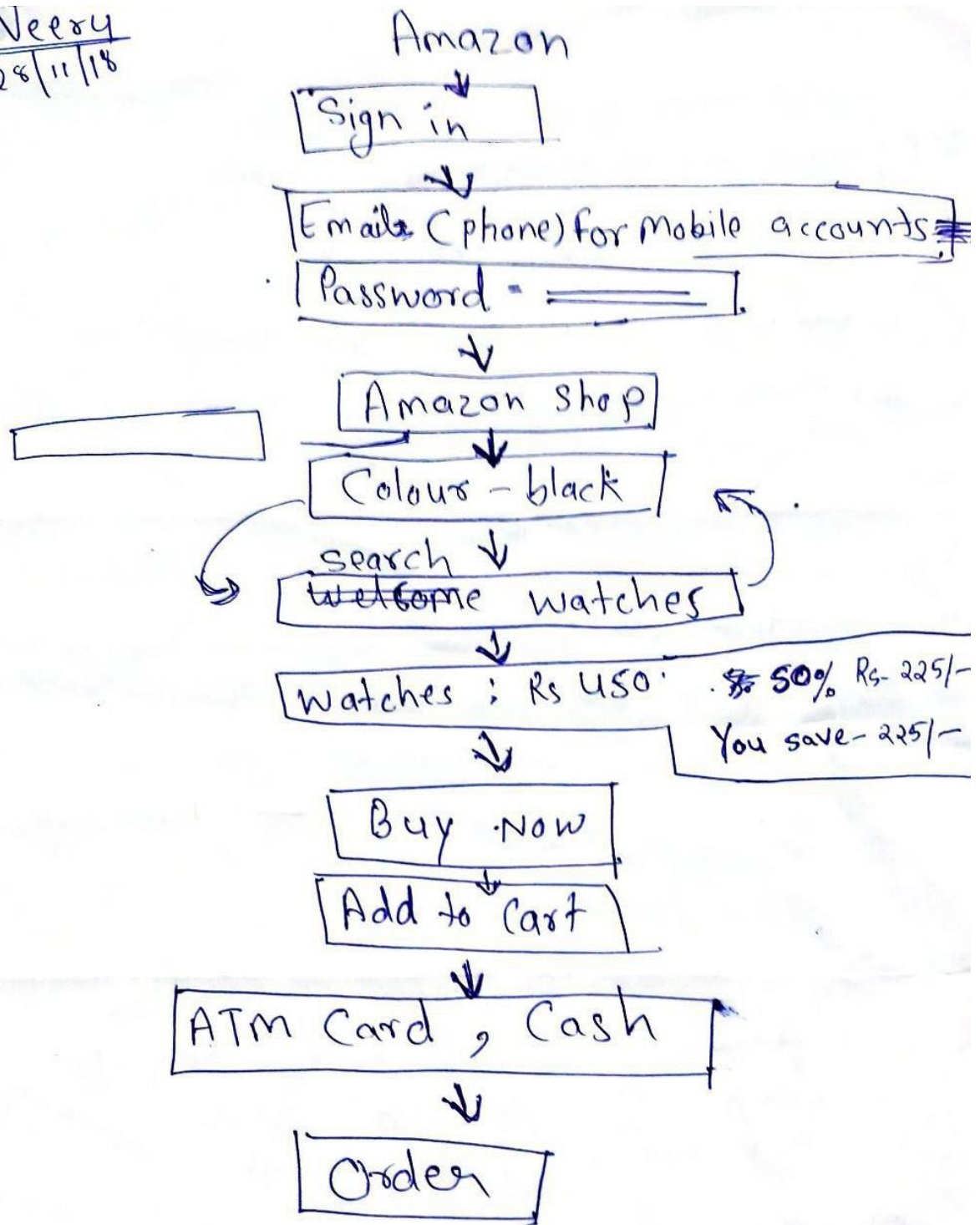
Buy Now

Add to Cart

ATM Card , Cash

Order

Figure 6   Neery flowchart

Building on the earlier work on words and terms, in the later lessons, Deepu chose

three words for the students to do further work on: *delivery*, *order* and *within*. In his report,

he explained that the task he chose was to make sentences with these words. English presents

particular challenges for ISL users as the syntax is so different (Woll and Sutton-Spence

2011). We know from Deepu and other tutors' reports that the construction of sentences was

a common task, perceived by the students as an essential element of their learning of English

grammar. Deepu started by showing the girls example sentences that he had found on the

internet. Then he asked them to create their own sentences. Figure 7 shows one student's

sentences.

~~Ordord~~ Ordered

① I ordered lunch already.
② My mother ordered to me sweep the room.
③ She order him ~~mobile put in her~~ put mobile in her bag
④ I ~~has~~ have ordered a mobile from amazon Online.
⑤ my father order one ~~pi~~ larges pizza

Within

① Come back within ten ~~minutes~~ minutes.
② ~~I tired took calm.~~ But I was ~~red~~ really ~~exciter~~ within
③ I will go to school within ~~hour~~ one hour
④ I will call you within a week
⑤ I will meet at stadium within ~~hour~~ five minutes

Delivery

① ~~I pay shop mobile~~ My brother pays Shop Phone delivery.
② we pay ~~shop~~ delivery for notebook Shop
③ my brother pays ~~to for~~ ~~mobile~~ mobile shop delivery
④ I pay for Shop mobile delivery.
⑤ I got a delivery to ~~fresh~~ fresh ~~fruits~~ fruits

Figure 7   Making sentences

Example 2: Ways to reduce your carbon footprint

Our second example covers a series of lessons taking place over two weeks in September 2019. During the second of these weeks, Uta visited the class. There were 13 students registered for this class, which had been set up in July 2019 in the Indore Bilingual Deaf Academy (IBDA), one of the project's partner schools. It took place every morning from 8am to 9.30. The IBDA is one of the few fully bilingual residential schools in India, with learning taking place through the medium of Indian sign language, from nursery age to junior college level and Hindi the first language for literacy the students are taught. The data we draw on here include the peer tutor's report, Uta's field notes from her visit as well as photos and videos taken throughout the 2 weeks. Uta was supported by a sign language interpreter.

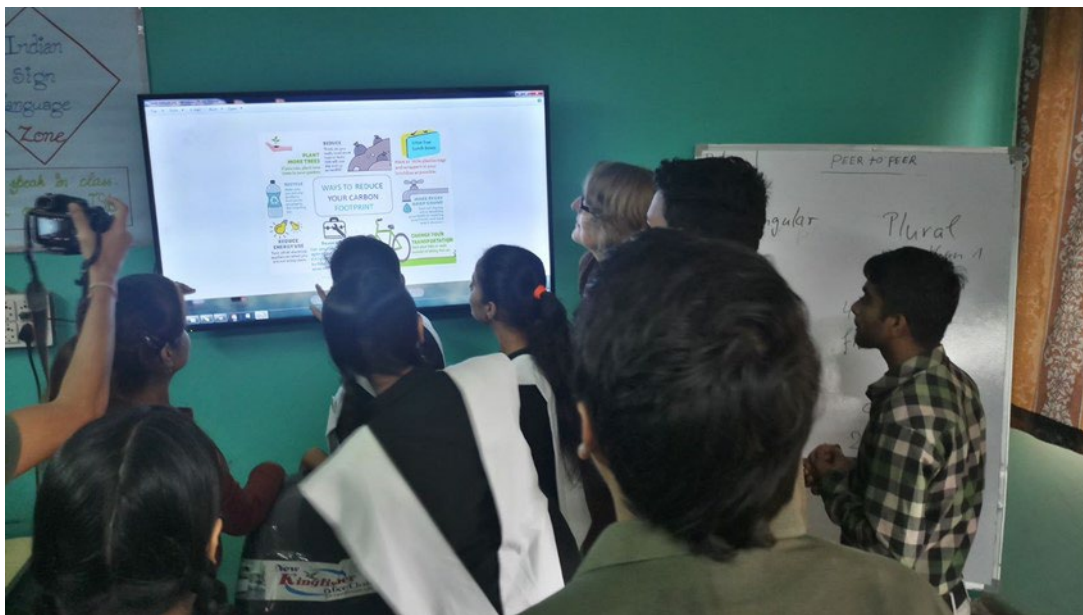Figure 8   A poster on ways to reduce our carbon footprint

Figure 9   Students reading the poster

This series of lessons focussed on a poster that Brijesh B, the peer tutor, had found on the internet: Ways to reduce your carbon footprint (see Figure 8). In the week prior to Uta's visit, the class had begun work on this text. They had worked in small groups to discuss amongst each other the proposals on the poster.

In the first lesson that Uta observed (23.9.2019), the students read the poster with her (Figure 9). They continued to discuss a further element of the poster. Brijesh had put the following topic on their white board: 'On trees and why they are important' and 'save trees'. He invited the students to discuss, in pairs first, why trees are important. Then, he asked them to come forward to the board to write a sentence on what trees are needed for and to sign their sentence. Sample sentences written are: 'tree is life' and 'tree is used for books, wooden furniture, paper'.

These sentences triggered further discussion in ISL. For example, a student asked what would happen if there were no trees. A classmate suggested that the government should make people aware that trees need to be planted. Climate change, another student adds, has led to changes specifically in central India. While the students continued to share their ideas in ISL, Brijesh captured key parts of their discussion on the white board. For example, he put

'Plant more trees' and 'Green city'.

The students' discussion continued as one girl mentioned a protest in Aligarh, in Uttar Pradesh, led by a woman, objecting to trees having to be felled for a factory to be built. They talked about the link between trees and water and the effect of deforestation on the climate, with one woman asking what comes first, the trees or water. Brijesh contributed, telling them about an initiative in Tamil Nadu where citizens had been asked to donate money for tree planting. He also invited the students to try to find out more about the protests in Uttar Pradesh.

Figure 10 shows the students discussing another topic invited by the poster. They talked, animately, about what plastics are used for. This discussion had taken place in the week prior to Uta's visit.

Figure 10   Students discussing what plastics are needed for

The above examples show that the poster invited critical discussion, an element of Cope and Kalantzis' multiliteracies pedagogy (2009). The students seemed to be engaged in these discussions. However, talking to Brijesh after the lesson, Uta found out that the students in the class had previously raised concerns about spending so much time discussing authentic texts and had repeatedly asked for more time to be devoted to grammar. Brijesh's reports from the two previous months confirm this. For example, he refers to comments by one of the students, who found the discussions too long and was 'bored'. Brijesh also reported that in the week before Uta' s visit, seven students were consistently missing classes. Fearing that some lack of interest was behind this, Brijesh consulted Uta on how to bring more English grammar into the classes. They now had an opportunity to bring the disaffected students fully back into the project as they were keen to attend to see the researcher from England.

Brijesh and Uta worked on a plan for how to bring together work on the text, the poster on reducing your carbon footprint, with grammar lessons. Figure 11 is an example of such an activity. The students used the poster to first identify singular and plural nouns, then to find nouns, verbs and adjectives, supported by Brijesh and Uta.
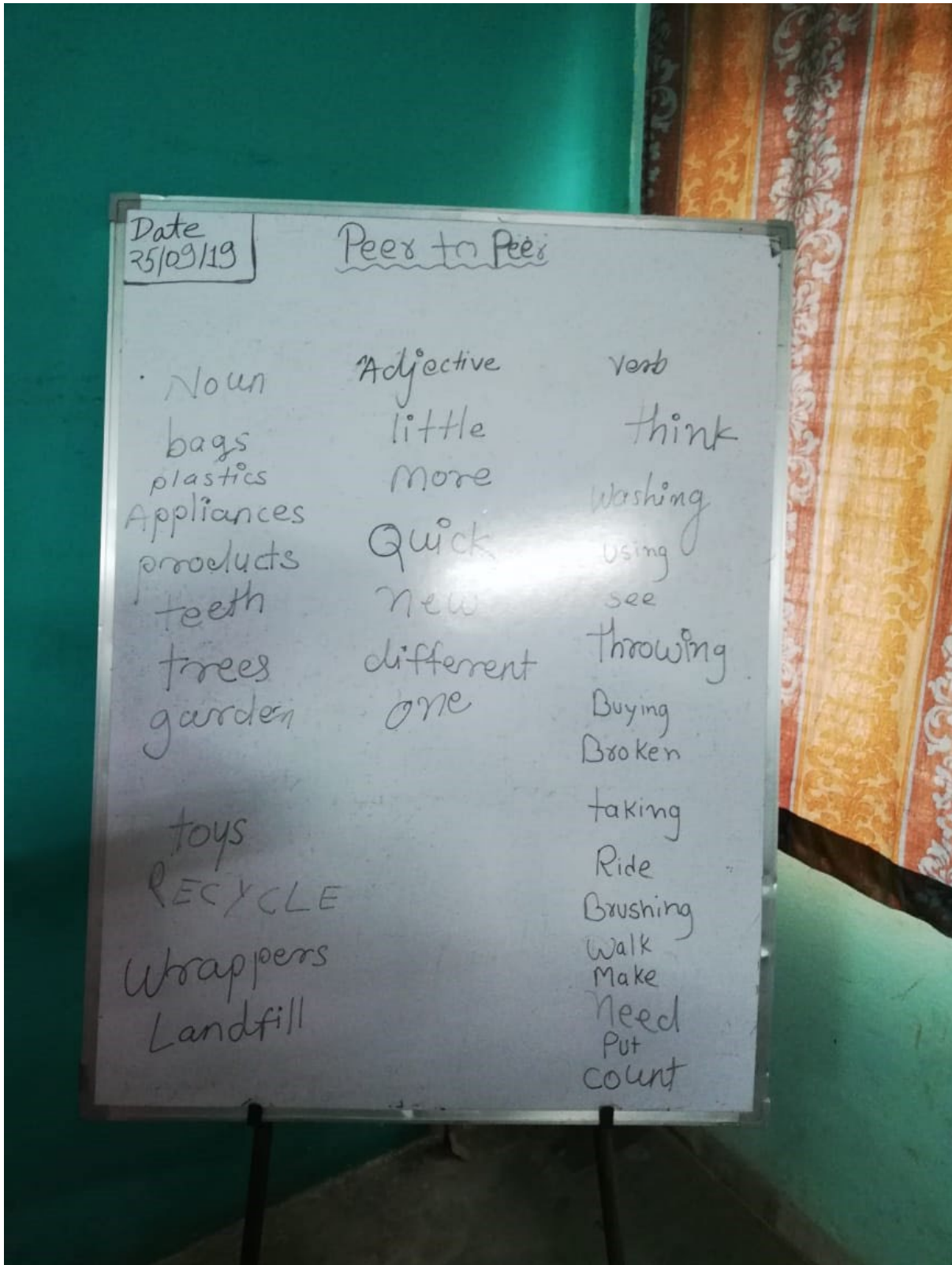
Figure 11   Word classes

On the following days, Brijesh ran a series of lessons introducing key grammar

elements, including prepositions, pronouns and possessive pronouns. With these lessons,

Brijesh responded to the students' demand for grammar. Both lessons included a lot of instruction, Brijesh explaining, for example, about countable and uncountable nouns, using the example of *energy* after a student had written *energies* on the board.

To introduce possessive pronouns, Brijesh prepared a short presentation with sample sentences. In a later exercise, he gave the students a sentence in ISL, asking them to write it in English, as shown in Figure 12. As homework, he asked the students to come up with their own sentences using possessive pronouns (Figure 13).
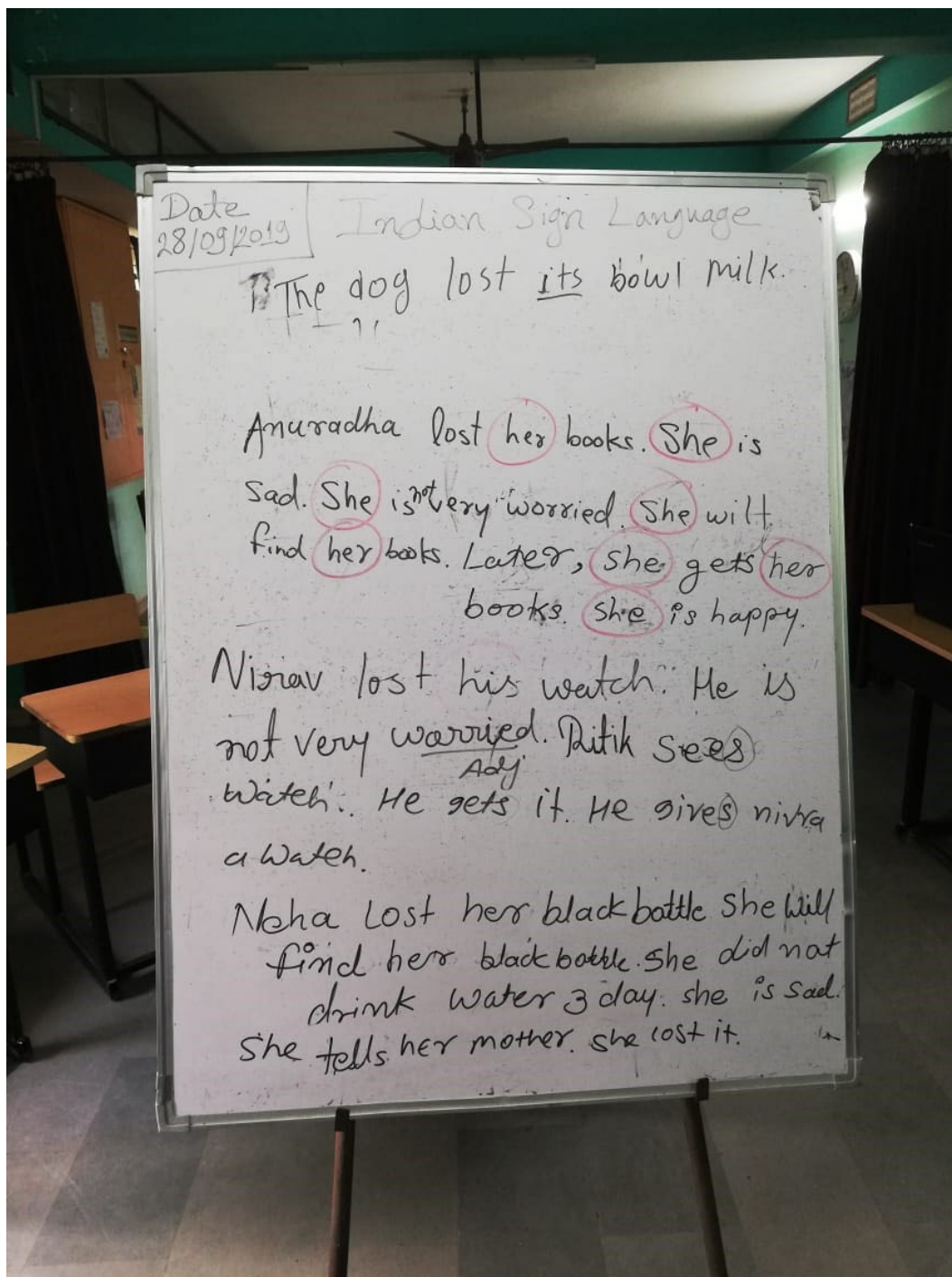
Figure 12   Grammar activity on possessive pronouns

Name - Poonam Mishra   Date - 1/10/2019

1) My shirt is __new__.

2) __He__ __two__ mobiles __are__ black.

3) Their __one__ car __is__ small.

4) __His__ two cars __are__ small.

5) Her brothers are __two__..

6) Their two rooms __are__ small __is__ beauitful.

7) __He__ two bikes __are__ expensive.

8) Its __two__ __dogs__ are cheap.

9) Our black __one__ ~~two~~ __two are__ Cars .

10) Laxmi __and__ Shikha __are__ our __Sons__.

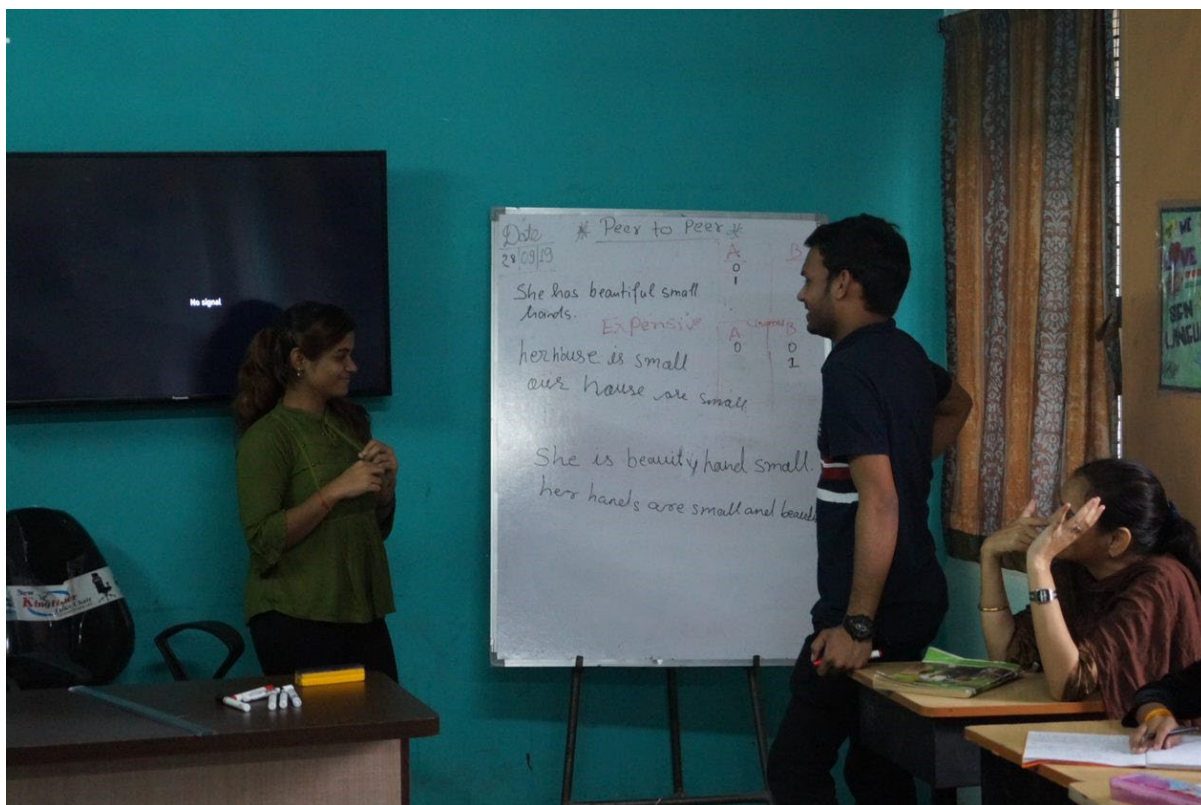Figure 13   A student's individual work on possessive pronouns

Figure 14   A grammar game

For the Friday lesson, Brijesh had devised a grammar game (see figure 14). He had

divided the students into two groups, competing with each other. Each group had to invent a

written sentence in English including a possessive pronoun and using past tense. A group

member had to come to the board and correctly sign the sentence. A member of the

competing group had to translate that sentence into written English. Each group was awarded

points for a correctly written English sentence. We can see that in this series of lessons, the

construction of English sentences was again an important activity, similar to Deepu's lessons.

Discussion

The series of lessons on 'Shopping online' and 'Ways of reducing your carbon footprint'

illustrate how the multiliteracies pedagogy was put into practice by the tutors and students in

our project. The two examples show how a multiliteracies pedagogy was adapted to work

with deaf students and in contexts beyond schools in the Global North (RQ1). Our examples

also illustrate that tutors and students engaged with the approach from the perspective of their own experiences and aspirations, exercising their agency (RQ2).

The series of lessons on Shopping online illustrates the use of real literacies, chosen by the students., in the pursuit of enhancing their everyday lives as young women in urban Delhi. The use of an authentic, and here complex digital, multimodal text, is characteristic of a multiliteracies pedagogy, supporting engagement with a 'kaleidoscope of texts and literacies' (Mills, 2009, 106). Here we can see a multiliteracies approach successfully used in a bilingual class for deaf women in Delhi. The students were engaging in multiliteracies including through using their smart phones to look up English words. Deepu reported that the students enjoyed the lessons and that there were very few absences from the lessons.

These lessons align with what Cope and Kalantzis have referred to as the 'pedagogical weaving' that is 'between school learning and the practical out of school experiences of learners' (Cope and Kalantzis 2015, 4) and between known and unknown texts and activities. They entail 'building on the lifeworld experiences of students, situating meaning-making in real-world contexts' (Mills 2009, 108).

Brijesh's lessons also involved engaging with students' everyday context and 'pedagogical weaving' of the kind Cope and Kalantzis envisaged, but did so in a less direct way. The poster was not selected by students, but a resource Brijesh had found on the internet. He used it to stimulate the students' discussions, drawing on prior knowledge and expanding their critical engagement with a topical issue that they could relate to.

In terms of how the multiliteracies approach was adapted in the two classes, it is important to note the diverse modes used throughout the teaching and learning activities in both lesson cycles. In both classes, ISL was prominently used as shared L1, valued as the students' first language and main means of communication and learning, in a form of additive bilingualism (Swanwick 2017). Unlike in common forms of deaf bilingual education

(Munoz-Baell et al. 2011), in our project sign language is not seen as a component in an education that ultimately seeks to promote oral language. Nor were improvements in the students' English the sole aim. In their reports, Brijesh and Deepu repeatedly mention improvement in ISL amongst the learning outcomes, appreciated by the students. While for all the students, ISL was their first language, their level of fluency varied. In Indore for example, students talked about whether their parents were hearing or deaf (the latter meaning that they learned ISL from a very young age) or whether they had attended a hearing school (where no ISL would be used) or a bilingual school such as IBDA. One of the boys in the class had only joined IBDA two years prior to our project starting. He told Uta that his family had not been able to communicate with him in ISL. He only learned to be proficient in ISL when he joined IBDA.

While ISL was central to classroom interaction, learning and teaching relied on a combination of modes. Again, this chimes with a multiliteracies approach. The different classroom activities encouraged students to draw on and make use of their repertoire of means of expression or what (Kusters et al. 2017, 221) call a 'semiotic repertoire'. Extending the idea of a person's linguistic repertoire, the notion of semiotic repertoire allows us to highlight the multimodal nature of classroom interactions and the learning that emerged from it. Included in this repertoire were signing, writing, drawing and other visual-spatial forms of representation such as flowcharts. Engaging with the topic and making sense of the new knowledge it presented them with, the girls in Deepu's class for example made use of a range of modes, in different combinations. Signing and writing supported each other when Deepu explained the meanings of words that he wrote on the white board. Engaging with the English language through writing was supported by the visual mode, when the girls were drawing their posters, while signing supported this text production as they jointly discussed what to put on the flipchart. This multimodal multilingual collaboration allowed the girls to pool

together their different resources and strengths.

Semiotic repertoires, Kusters et al. (2017) explain, are to be understood as collections of resources, where resources are seen as tools and assets, thus assuming a non-deficit position. The students' knowledge of English, in both classes, for example, might in many ways be seen as lacking and the students' motivation to join the classes did of course stem from their own wish to improve their English. A deficit approach, as mentioned at the beginning of our paper, would be likely to examine what was happening in our lessons from the perspective of the students' limited English and might highlight the inaccuracies in both the students' and the teachers' writing. Spending time in Brijesh's classroom, Uta was aware of these inaccuracies. Our tutors' own exposure to English was limited. In line with the multiliteracies philosophy that values diversity, adherence to a standard and correctness were less relevant than ability to communicate (Zeshan et al. in press).

From a deficit perspective, one might conclude that the texts used, for example 'How to reduce your carbon footprint', were not suitable for the students' level of English, as overly complex in form and content. In Deepu's class too, we could see that using online shopping sites included the students having to learn many new words and concepts, revealing that they were not 'advanced' learners of English and thus perhaps putting into question the suitability of that text. However, approaching this question from a non-deficit perspective with a focus on situated everyday texts we can see that in both lessons there was space for the students to draw on their prior knowledge, experiences and resources. In Deepu's class, the text had been chosen by the students, reflecting their interest. Deepu's report and the photographs from his class show the students being highly engaged in the lesson activities. An important element facilitating their participation was the wide range of modes the students were allowed and encouraged to use and the range of texts they were invited to produce, illustrating the multiliteracies approach.

Collins and Ferri (2016), arguing from a perspective that sees disability as difference not deficit, suggest that teachers can support students' participation in lessons when they include a wide variety of texts that students can use and produce in lessons, beyond common school genres. While Collins and Ferri write from within a different context - high school education in the US and the debate about students who 'fail' conventional school expectations for writing and who are thus considered to have 'special needs'- the point they are making is applicable to our context. Drawing on and supporting a range of modes of expression and a variety of texts, always with ISL as a shared foundation for communication and learning, created an inclusive and non-deficit approach to teaching English literacy to the deaf students, in the sense explained in the introduction to our paper. This approach explicitly values diversity.

The two examples we have presented here also illustrate tutors and students' agency in how they engaged with the approach we had developed and how, as a result, our 'experiment' was creatively adapted and changed (RQ2). A multiliteracies pedagogy seeks to be learner-centred, inviting their agency and input (Hepple et al. 2014). In our project, the focus on authentic texts, including digital texts, was engaged with by the students in light of their own perceptions of their repertoire and what resources it had to offer, and, concomitantly, their aspirations for learning. In Brijesh's class specifically, this meant students asking for grammar to be taught. We know from Deepu's reports that his students too were keen for grammar teaching to be part of their lessons.

The flexibility that was demanded of the tutor in order to respond to the students' requests could be viewed as risky; this aligns with the expectation by Bradley and Reinking 2008) that formative and design experiments in language and literacy research should bring theory fully into dialogue with conditions on the ground, such flexibility is 'inherent to

successful practice' (Bradley and Reinking 2008, 120).

Conclusions

At the beginning of this paper, we set out the view of inclusive education that informed our project. Inclusivity, as explained, does not mean inclusion into mainstream education, but a deaf-lead, learner-centred approach taking full account of students' prior experiences, resources and aspirations. The multiliteracies approach that we worked with chimes with this perspective, as it seeks to recognize and build on students' 'lived experiences' or 'lived realities' (Burke and Hardware 2015, 144). Commonly, this is understood to refer to students' existing use and familiarity of multimedia and popular texts. Students' lived realities are, however, also related to how they experience their position within the society they are part of and how, within this context, they imagine possible futures. In our project the students' aspirations are shaped by the historical and social conditions of their lives, specifically their place as deaf people in societies where sign languages are undervalued and where educational and employment opportunities for deaf people are very restricted. The centrality of ISL in our project responded to this and was, as explained above, highly valued by the students. Bringing ISL into a multiliteracies perspective, working with the students' and tutors' resources, engaging with their requests, the classes provided important spaces for the students to develop their repertoires, including their knowledge of English, and their engagement with authentic texts, relevant to their own lives.

Despite the challenges we experienced we see our project as contributing to and strengthening calls in the wider literature on deaf education for deaf students to be seen as agentive (Murray et al. 2018, Snoddon and Murray 2019) and for educational opportunities that value sign languages in the spirit of additive bilingualism (Swanwick 2017). In other words, our project shows the value of a deaf-led inclusive education where sign languages are not the means to an educational aim that focusses on oral language but where sign language

and other means of communication, in our case including reading and writing English, are

supported and developed. Based on our findings, we call on practitioners and policy-makers

to develop educational opportunities for deaf people grounded in the value of diversity as

strength and building on deaf childen and adults' agency.

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